



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D3391-015
Job Sheet 158077



Part No: D3391-015

Job Qty: 1 ea

Part Name: Aft Tube Assembly



Part Weight: 0 lbs

Status: Production

Priority: Medium

Job Created: 9/30/17

Job Tracking No:

Due Date: 11/15/17

Created By: Mario Poulin

Type: Stock

Description:

Note: DWG REV J SHEETS 8,10,11 IPP rev A 05.12.13 New issue EC IPP rev B 06.02.09 Dwg @ revD EC IPP rev C 07.03.13 dwg @revF ec IPP rev D 07.10.31 ecn 1053P EC IPP Rev:E ECN 1056 07-11-13 DD verified by: EC IPP Rev:F 08-09-10 revH as per dwg DD verified by:EC IPP Rev:G 11.11.14 AS PER REV.I DD verified by:JLM

Ship Via:

Bill of Materials

Part/Part Name	Part Note	Serial No	Quantity	Location
D3391-015 Aft Tube Assembly	DWG REV J SHEETS 8,10,11 IPP rev A 05.12.13 New issue EC IPP rev B 06.02.09 Dwg @ revD EC IPP rev C 07.03.13 dwg @revF ec IPP rev D 07.10.31 ecn 1053P EC IPP Rev:E ECN 1056 07-11-13 DD verified by: EC IPP Rev:F 08-09-10 revH as per dwg DD verified by:EC IPP Rev:G 11.11.14 AS PER REV.I DD verified by:JLM		0.000	
ALS4-1032-130 Rivnut			0.000	
ALS4-1032-225 Rivnut	DWG REV B		0.000	
ALS4-428-165 Insert			0.000	
AN3C4A Bolt			0.000	
AN3C5A Bolt			0.000	
D2646 Aft Cap	DWG REV C IPP: G 05.08.22 Hole size revised in Step 5 KJ/JLM IPP Rev:H Changed Inserts 07-02-19 JLM IPP rev I changed inserts 07.06.11 EC		0.000	
D3670-4-200 Bushing	DWG REV A		0.000	
D3672-1 Washer, Phenolic	DWG REV D IPP Rev:A New Issue 07-09-09 JLM Verified By:EC IPP Rev:B ECN 1056 07-11-13 DD		0.000	
D4095-047 Wearpad Aft	DWG REV D SHEETS 1,3,8,9 IPP rev.A 11.11.07 new issue EC verified by:JLM IPP REV:B 15.10.29 AUTOMATE WELDING DD VERF:JLM		0.000	
D4095-049 Wearpad Aft	DWG REV D SHEETS 1,3,8,9 IPP rev.A 11.11.07 new issue E REV:B 15.10.29 AUTOMATE WELDING DD VE		0.000	
D6014-090 Aluminum Extrusion	DWG REV A			
MS20601-AD4W3 Rivet				
MS20601-AD4W7 Rivet				
MS21075L5 Nut Plate				
NAS1149C0332R Washer				

Status: Stock

Part: **D3391-015 B158077**

Created: 9/30/17 12:19 PM DART.MICHAUD-FEBRILLE.VICTORIA



Serial No: **S000106**

Printed By: Goldston, Justin 10/2/17 10:45 AM

Job Routing

Operation	Qty	Standard	Workcenter/Supplier
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Op No			Due Date	Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time
90	Start up Operation	1 Ea	11/14/17	0.00	0.00	Start up container	
210	Skidtubes	1 pcs	11/14/17	0.00	2.10	Skidtubes	
240	QC	1 pcs	11/14/17	0.00	0.00	QC14	
250	HandFinish	1 pcs	11/15/17	0.00	0.62	HandFinish4	
260	QC	1 pcs	11/15/17	0.00	0.00	QC5	
270	Packaging	1 pcs	11/15/17	0.00	0.00	Packaging3	
280	QC21-SA	1 Ea	11/15/17	0.00	0.00	QC21	

Job BOM

Part / Item	Component Name	Quantity	Operation	Special Comments
D3391-015 B158077		1 Ea (1 ea)	90-Start up Operation	
ALS4-1032-130	Rivnut	8 Ea (8 ea)	250-HandFinish	
ALS4-1032-225	Rivnut	4 Ea (4 ea)	250-HandFinish	
ALS4-428-165	Insert	4 Ea (4 ea)	250-HandFinish	
AN3C4A	Bolt	6 Ea (6 ea)	250-HandFinish	
AN3C5A	Bolt	4 Ea (4 ea)	250-HandFinish	
D2646	Aft Cap	1 Ea (1 ea)	250-HandFinish	
D3670-4-200	Bushing	14 Ea (14 ea)	250-HandFinish	
D3672-1	Washer, Phenolic	2 Ea (2 ea)	250-HandFinish	
D4095-047	Wearpad Aft	1 Ea (1 ea)	250-HandFinish	
D4095-049	Wearpad Aft	1 Ea (1 ea)	250-HandFinish	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	D3391-015 B158077	1	1	0	0
250-HandFinish	ALS4-1032-130	8	0	0	0
	ALS4-1032-225	4	0	0	0
	ALS4-428-165	4	0	0	0
	AN3C4A	6	0	0	0
	AN3C5A	4	0	0	0
	D2646	1	0	0	0
	D3670-4-200	14	0	0	0
	D3672-1	2	0	0	0
	D4095-047	1	0	0	0
	D4095-049	1	0	0	0

Part Specifications

Specifications could not be found.

Work Order Summary

Thursday, September 28, 2017 9:06:14 AM

Page 1 of 3

Criteria : Work Order ID: 158077 Item ID: D3391-015 Product Family SMALL FAB
Work Order Start Dates 3/14/2017 to 3/14/2017 11:59:59 PM Work Order Required Dates 3/24/2017 to 3/24/2017 11:59:59 PM

Reference: SCHEDULED
Work Order Status Released

Work Order ID	158077	Required Qty	1.0000	Status Code	Released
Item ID	D3391-015	Accepted Qty	0.0000	Scrap Qty	0.0000
Item Name	Aft Tube Assembly				
Current Acct Value	\$2,742.524				
Start Date	3/14/2017	Required Date	3/24/2017	Completed Date	
Standard	** Actual **		** Acct. Value **	** Variance **	** Variance % **
Direct Costs	Total	Each	Each	Each	Each
Material	\$583.244	\$0.000	\$607.040	\$607.040	100.00%
Labor	\$478.702	\$0.000	\$492.312	\$492.312	100.00%
Outplant	\$0.000	\$0.000	\$0.104	\$0.104	100.00%
Variable Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
Fixed Burden	\$1,221.084	\$0.000	\$1,356.972	\$1,356.972	100.00%
Material Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
** Total **	\$2,283.030	\$0.000	\$2,456.428	\$2,456.428	

Item ID/Item Name	Required Qty	Issue Code	Issue Date	Issued Qty	Cost Amount
D6014-090 Aluminum Extrusion	1.0000		3/13/2017	1.0000	\$556.345
MS20601-AD4W3 Rivet	0.0000		9/28/2017	12.0000	\$2.396
MS20601-AD4W7 RIVET	8.0000		9/28/2017	8.0000	\$7.234
MS21075L5 Nut Plate	10.0000		8/18/2017	10.0000	\$17.269
Total Matl Amts:					\$583.244

Work Center CNC Bend 1

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
turc01	3/21/2017											
160			0.00	0.00	0.19	0.19	1.00	\$0.000	\$3.645	\$10.635	\$0.000	\$14.281
160			0.86	0.86	0.00	0.00	1.00	\$16.115	\$0.000	\$47.017	\$0.000	\$63.133
Total:			0.86	0.86	0.19	0.19	2.00	\$16.115	\$3.645	\$57.653	\$0.000	\$77.414

Work Center HAAS 1

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
pare01												
		3/19/2017										
120			1.41	1.41	0.00	0.00	1.00	\$26.497	\$0.000	\$77.306	\$0.000	\$103.802
		3/20/2017										
120			0.00	0.00	4.08	4.08	1.00	\$0.000	\$76.757	\$223.942	\$0.000	\$300.698
Total:			1.41	1.41	4.08	4.08	2.00	\$26.497	\$76.757	\$301.247	\$0.000	\$404.501

Work Center HandFinish

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
BOUD01												
		6/7/2017										
200			0.00	0.00	0.77	0.19	4.00	\$0.000	\$4.197	\$10.476	\$0.000	\$14.672
LECO02												
		7/31/2017										
225			0.00	0.00	0.33	0.33	1.00	\$0.000	\$7.269	\$18.145	\$0.000	\$25.414
whit01												
		8/18/2017										
250			0.00	0.00	0.19	0.19	1.00	\$0.000	\$4.131	\$10.311	\$0.000	\$14.442
Total:			0.00	0.00	1.29	0.72	6.00	\$0.000	\$15.597	\$38.931	\$0.000	\$54.528

Work Center Mori Seiki

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
hube01												
		3/13/2017										
100			3.18	1.59	0.00	0.00	2.00	\$30.475	\$0.000	\$100.755	\$0.000	\$131.230
		3/14/2017										
100			0.00	0.00	1.85	1.85	1.00	\$0.000	\$35.369	\$116.936	\$0.000	\$152.305
100			0.00	0.00	2.80	2.80	1.00	\$0.000	\$53.682	\$177.483	\$0.000	\$231.165
Total:			3.18	1.59	4.65	4.65	4.00	\$30.475	\$89.050	\$395.174	\$0.000	\$514.699

Work Center Skidtubes

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
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PAQU03

5/29/2017											
210		0.00	0.00	0.50	0.50	1.00	\$0.000	\$13.010	\$25.250	\$0.000	\$38.260
turc01											
3/21/2017											
150		0.00	0.00	0.00	0.00	1.00	\$0.000	\$0.086	\$0.167	\$0.000	\$0.253
3/22/2017											
180		0.00	0.00	4.00	4.00	1.00	\$0.000	\$104.080	\$202.000	\$0.000	\$306.080
180		0.00	0.00	0.86	0.86	1.00	\$0.000	\$22.320	\$43.319	\$0.000	\$65.639
3/23/2017											
180		0.00	0.00	0.18	0.18	1.00	\$0.000	\$4.798	\$9.312	\$0.000	\$14.110
7/19/2017											
210		0.00	0.00	3.43	1.71	2.00	\$0.000	\$44.588	\$86.537	\$0.000	\$131.125
7/24/2017											
210		0.00	0.00	0.53	0.53	1.00	\$0.000	\$13.877	\$26.932	\$0.000	\$40.808
210		0.00	0.00	0.68	0.68	1.00	\$0.000	\$17.808	\$34.562	\$0.000	\$52.370
Total:		0.00	0.00	10.19	8.48	9.00	\$0.000	\$220.567	\$428.078	\$0.000	\$648.645

Work Order ID 158077

Thursday, March 09, 2017 1:07:40 PM

158077

Item ID: D3391-015

Accept

N9000040100

Setup Start

NS1

Revision ID:

Item Name: Aft Tube Assembly

Stop

NS2

Start Date: 3/14/2017 Start Qty: 1.00

Customer Item ID:

Required Date: 3/24/2017 Req'd Qty: 1.00

Customer:

Reference: SCHEDULED

Approvals:

Process Plan:

Date: MAR 09 2017

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

NR1

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr	Revision Nbr
D3391	J

100 0.08

100

MORI SEIKI CNC LATHE LARGE

Mori Seiki

Memo

0.34

Mori Seiki CNC Lathe Large

Turn as per Folio FA599 Rev: 11 & Dwg D3391 Rev: 5

****REMOVE STEADY REST AND MACHINIG MARKS****

110 0.00

110

QC2- Inspect parts off machine FA/FAIB

QC

Memo

0.00

Quality Control

120 0.05

120

HAAS CNC VERTICAL MACHINING #1

HAAS1

Memo

0.33

HAAS CNC vertical machine #1

1-Machine as per Folio FA 599 Rev: 11 & Dwg D3391 Rev: 1
2-Debur

DAS 23 9-89 17/03/14

DAS 23 9-89 17/03/14

DAS 33 9-89 17/03/20

Work Order ID 158077

Thursday, March 09, 2017 1:07:40 PM

158077

Item ID: D3391-015
Revision ID:

Accept

N900040100

Setup Start

NS1

Item Name: Aft Tube Assembly

Stop

NS2

Start Date: 3/14/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/24/2017 Req'd Qty: 1.00

1

Customer:

Reference: SCHEDULED

Approvals: Process Plan: _____ Date: _____

Tooling:

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan
Code

Accept Qty

Reject Qty

Reject Number

Insp. Stamp

130 QC2- Inspect parts off machine FAI/FAIB

0.00

130

Memo

0.00

QC

Quality Control

140 QC8- Inspect parts - second check

0.00

140

Memo

0.00

1 0

DAS
44
8-59 17-03-21

QC

Quality Control

150 Skidtubes 0.00

150

Memo

0.04

1-Drill (PLOT HOLE) aft cap holes per Dwg D3391 using DT8803

Hole bend tangent as per Folio-11

1 0 17-03-21

DT.

Work Order ID 158077

Thursday, March 09, 2017 1:07:40 PM

158077

Item ID: D3391-015

Revision ID:

Item Name: Att Tube Assembly

Start Date: 3/14/2017 Start Qty: 1.00

Required Date: 3/24/2017 Req'd Qty: 1.00

Reference: SCHEDULED

Approvals: Process Plan: _____ Date: _____

QC: _____ Date: _____

Tooling: _____

SPC (Y/N): _____

Date: _____

Date: _____

Run

Start

Stop

NR1
NR2

Accept

N900040100

Setup

Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

160

CNC Bend 1

CNC Delta 100 Bender

BENDING MACHINE - SKIDTUBES

Memo

Form as per Dwg D3391

Folio -11

0.12

DAS
18
8-00

170

170

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

4.3"

1 or 1703-22

17-3-21

Work Order ID 158077

Thursday, March 09, 2017 1:07:40 PM

158077

Item ID: D3391-015

Accept

N070040100

Setup Start

NS1

Revision ID:

Item Name: Aft Tube Assembly

Stop ***NS2***

Start Date: 3/14/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/24/2017 Req'd Qty: 1.00

1

Customer:

Reference: SCHEDULED

Approvals: Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

180

180

Skidubes

Skidubes

Memo

0.32

1-Open Aft cap pilot hole to .208" as per Dwg D3391 ✓

2-Drill float bag holes using DT8809 as per Dwg D3391 (All holes) ✓

3-Drill wearplate holes as per Dwg D3391 using DT8878 (Mid Tube) & DT8217 ✓
Wearplate Jig.

*****Do Not Open To Finished Size*****

4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2 ✓
previously drilled aft wearplate holes.

5- Transfer holes from D3391-013 for electric step 0.187" hole D3391 section cc-cc ✓

6- Using DT10247 and drill holes for nuplates, Detail DD, open (5) forward wearplate holes 0.375", and c'sink. ✓

7-Open wearplate holes to 0.297" and c'bore as per dwg D3391. ***SIX FARTHEST AFT HOLES ONLY*** ✓

8-C'bore section cc-cc and open to finish size

9-Open up all wearshoe, wearplate to 0.297" open float bag holes to 0.328" as per Dwg D3391, and c'bore ✓

10-Deburr ✓

1 170323
J.T.

Work Order ID 158077

Thursday, March 09, 2017 1:07:40 PM

158077

Item ID: D3391-015

Accept

Revision ID:

N9000040100

Setup Start

NS1

Item Name: Aft Tube Assembly

Stop

NS2

Start Date: 3/14/2017 Start Qty: 1.00

Required Date: 3/24/2017 Req'd Qty: 1.00

1

Cust Item ID:
Customer:

Reference: SCHEDULED

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190 QC5- Inspect part completeness to step on W/O

0.00

190

QC

Memo

0.00

Quality Control

MAY 30 2017
38
DAS

200

Chemical Conversion Coat per QSK005 4.1

0.00

200

HandFinish

Memo

0.18

Hand Finishing

(X1) 2017/06/07
BEB

205

QC7-Inspect Chemical Conversion Coat

0.00

205

QC

Memo

0.00

Quality Control

1 0 1707-18
BEB

Work Order ID 158077

158077

Thursday, March 09, 2017 1:07:40 PM

Item ID: D3391-015

Accept

N9000040100

Setup Start *N.S.1*

Revision ID:

Stop *N.S.2*

Item Name: Air Tube Assembly

Start Date: 3/14/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/24/2017 Req'd Qty: 1.00

1

Customer:

Reference: SCHEDULED

Approvals: Process Plan:

Date: Tooling: SPC (Y/N):

Date:

Run Start *N.R.1*

Stop *N.R.2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan
Code

Accept Qty Reject Qty Reject Number Insp.
Stamp

210

210

Skidubes

Skidubes

Memo

1- Instal spacers as per dwg D3391
A/R Magnabond 6398 Batch: M136671
exp. date: 2017-11-1
cure time 12hrs as per OSI0015

N 2017-07-19

12-07-18

OT

2- Grind crossbolts flush

3- Back drill using #9 drill

4- Touchup Magnabond

5- Debur

17.07.24

220

220

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

JUL 27 2017

9-89

38

DAS

Work Order ID 158077

Thursday, March 09, 2017 1:07:40 PM

158077

Item ID: D3391-015

Accept

Revision ID:

N9000040100

Setup Start

N.S1

Item Name: Aft Tube Assembly

Stop

N.S2

Start Date: 3/14/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/24/2017 Req'd Qty: 1.00

1

Customer:

Reference: SCHEDULED

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

250

250

HandFinish

HandFinishing

Memo

0.34 hr
0.13

Hand Finishing

1- Install nutplate using MS20601AD4W4 (qty12) in the six most forward holes and MS20601AD4W9 (qty8) in the four aft holes. Rivet nutplates as per section TT on sheet 11.

17-08-16

2- Install inserts per dwg D3391

3- Install Aft Cap as per Dwg D3391

A/R Sikaflex-241/-291

Sikaflex expiry date: _____

4- INSTALL WEARPLATE AS PER DWG

260

260

QC

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Quality Control

Work Order ID 158077

Thursday, March 09, 2017 1:07:40 PM

158077

Item ID: D3391-015

Revision ID:

Item Name: Aft Tube Assembly

Start Date: 3/14/2017 Start Qty: 1.00

Required Date: 3/24/2017 Req'd Qty: 1.00

Reference: SCHEDULED

Accept

N9000040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____

QC: _____ Date: _____

Tooling: _____

SPC (Y/N): _____

Date: _____

Date: _____

Run

Start

NR1

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

270 Identify as per dwg & Stock Location: _____

0.00

270

Packaging

Memo

0.00

Packaging

280 QC21 - Final Inspection - Work Order Release

0.00

280

QC

Memo

0.02

Quality Control

Picklist Print

Thursday, March 09, 2017 1:07:49 PM

Work Order ID: 158077

Parent Item: D3391-015

Parent Item Name: Alt Tube Assembly

158077
D3391-015

Start Date: 3/14/2017

Required Date: 3/24/2017

Start Qty: 1.00

Required Qty: 1.00

D6014-090 Manufactured No

210 Each

29.0000

1 1

D6014-090

Aluminum Extrusion

Location

Loc Qty

Loc Code

LG003

29

8

8

139426

AL S4-1032-130 Purchased No

250 Each

4,358.000

8

8

AL S4-1032-130

Rivnut

Location

Loc Qty

Loc Code

CCK007

4136

8

8

M136579

4136

8

8

FG

50

FG

8

8

M135442

50

8

8

FP001

172

8

8

M133077

72

8

8

M135442

100

8

8

AL S4-1032-225 Purchased No

250 Each

4,046.000

4

4

AL S4-1032-225

Rivnut

Location

Loc Qty

Loc Code

CCK007

500

8

8

M136579

500

8

8

FG

28

8

8

M134975

20

8

8

M135998

8

8

8

FP001

3518

8

8

M135603

40

8

8

M135920

38

8

8

M135998

3350

8

8

M136265

90

8

8

DAS
23
9-89
17/3/13

Picklist Print

Thursday, March 09, 2017 1:07:49 PM

Work Order ID: 158077

158077

Parent Item: D3391-015

D3391-015

Parent Item Name: Air Tube Assembly

Start Date: 3/14/2017

Required Date: 3/24/2017

Start Qty: 1.00

Required Qty: 1.00

ALS4-428-165

Purchased

No

250

Each

65.0000

4

4

ALS4-428-165

INSERT

**

Location

Loc Qty

Loc Code

FG

117769

10

10

FP001

117769

55

5

m136986

50

FG

250

Each

567.0000

6

6

Purchased

No

AN3C4A

Bolt

**

Location

Loc Qty

Loc Code

FG

122814

20

20

FP001

M136450

375

23

M136740

8

M136986

344

ST350

172

M135704

172

Picklist Print

Thursday, March 09, 2017 1:07:49 PM

Work Order ID: 158077

158077

Parent Item: D3391-015

D3391-015

Parent Item Name: Air Tube Assembly

Start Date: 3/14/2017

Required Date: 3/24/2017

Start Qty: 1.00

Required Qty: 1.00

AN3C5A

Purchased No

250 Each

780.0000

4 4

AN3C5A
Bolt

**

Location

Loc Qty

Loc Code

FG

122800

5

FP001

M136648

204

OVER002

M136182

400

M136450

200

ST350

M134676

171

M135442

170

D2646

Manufactured No

250

Each

12.0000

1 1

**

D2646
Air Cap

Location

Loc Qty

Loc Code

FG

85848

4

FP001

90495

2

HP001

127924

8

136885

1

149748

3

4

Picklist Print

Thursday, March 09, 2017 1:07:49 PM

Work Order ID: 158077

158077

Parent Item: D3391-015

D3391-015

Parent Item Name: Aft Tube Assembly

Start Date: 3/14/2017

Required Date: 3/24/2017

Start Qty: 1.00

Required Qty: 1.00

D3670-4-200

Manufactured No

250 Each

95.0000 14 14

D3670-4-200

**

Bushing

Location

Loc Qty

Loc Code

FG

87709

10 10

LG001

138819

85 85

154830

3 20

155840

62 62

D3672-1

Manufactured No

250 Each

724.0000

2 2

D3672-1

**

Washer, Phenolic

Location

Loc Qty

Loc Code

FG

85222

10 10

FP001

112218

4 4

134785

172 172

150074

500 500

ST049

38 38

147077

38 38

D4095-047

Manufactured No

250 Each

13.0000

1 1

D4095-047

**

Wearpad Aft

Location

Loc Qty

Loc Code

FP001

149261

13 13

154327

4 4

156491

5 5

4 4

Picklist Print

Thursday, March 09, 2017 1:07:50 PM

Work Order ID: 158077

158077

Parent Item: D3391-015

D3391-015

Parent Item Name: Aft Tube Assembly

Start Date: 3/14/2017

Required Date: 3/24/2017

Start Qty: 1.00

Required Qty: 1.00

MS2107515

Purchased

No

250

Each

143.0000

10

10

MS210751 5

Nut Plate

ML34951

**

17-08-18

Location

Loc Qty

Loc Code

GA

80

m136988

80

LG001

10

m136442

10

ST298

53

m133498

2

m135603

1

m136987

50

DART AEROSPACE LTD		Work Order: 158077
Description: Float Skidtube (412)		Part Number: D3391-3
Inspection Dwg: D3391 Rev: J		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
14.000	+/-0.010	14.000	✓		tape	
3.500	+/-0.010	3.503	✓		Vernier	
Ø3.200	+/-0.010	3.199	✓			
Ø3.750	+/-0.010	3.721	✓			
30° x 0.060 chamfer	+/-0.010	30° x 0.060	✓		Vernier	
88.93	+/-0.030	88.92	✓		tape	

Measured by: DAS 23 9-89

Date: 17/3/14

Audited by:

Date:

HAAS Section						
1.526	+0.000/-0.030	1.526	✓		MIP-04	vern
7.500	+/-0.010	7.496	✓			
27.750	+/-0.010	27.750	✓			
31.750	+/-0.010	31.750	✓			
35.250	+/-0.010	35.250	✓			
3.300	+/-0.010	3.303	✓			
0.200	+/-0.010	0.200	✓			
3.520	+/-0.010	3.520	✓			
0.687	+0.010/-0.000	0.680	✓			
R0.062	+/-0.010	0.061	✓			
Ø0.484	+0.005/-0.001	0.486	✓			

Measured by: DAS 33 9-89

Date: 19/03/20

Audited by: 44 9-89

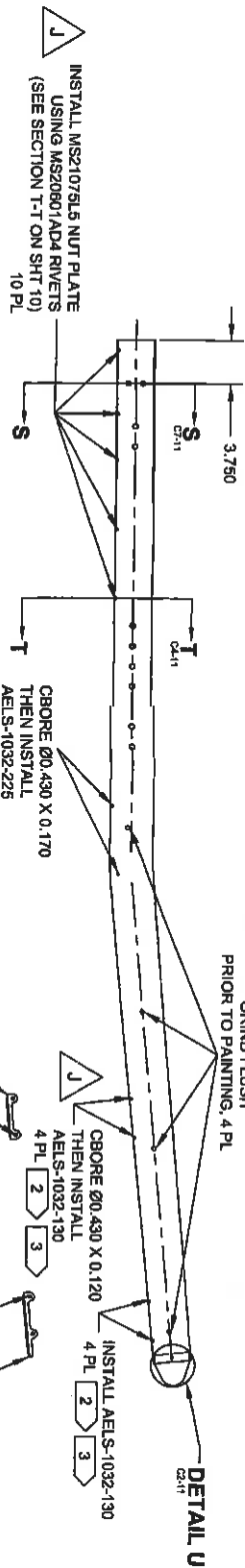
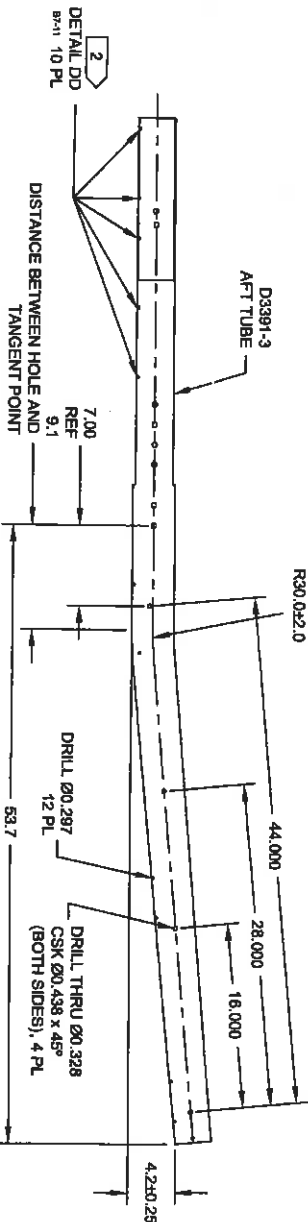
Date: 17-03-21

Rev	Date	Change	Revised by	Approved
A	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
B	06.06.19	Dwg revision update	KJ/JLM	
C	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	
H	11.06.21	Dimension 44.995 removed	KJ	
I	12.05.15	Dwg Rev updated	KJ	
J	12.05.23	Dimension updated	KJ	
K	12.10.15	88.93 dimension removed	KJ	
L	12.11.28	88.93 dimension added	KJ	
M	16.06.23	Dimensions updated per Rev J	KJ	

QTY	PART NUMBER	DESCRIPTION
1	D3391-025	AFT TUBE ASSEMBLY
1	D2849	AFT CAP
1	D3391-3	AFT TUBE
4	D3670-4200	SPACER
2	D3672-1	WASHER
1	D4095-049	WEARPAD
1	D4095-047	WEARPAD
8	AEI-S-1032-130	INSERT
4	AEI-S-1032-225	INSERT
8	AN3CA	BOLT
20	MS20801-ADA	NUT PLATE BLIND
10	MS21074-5	NUT PLATE FLOATING
10	MS1149C332R	WASHER

NOTES:
 1) COAT ALL EXPOSED FASTENERS WITH LPS "LPS PROCOYON"
 2) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 AND Ø0.375 HOLES FOR WEARSHOE INSERTS AND NUTPLATES. CBORE AS NOTED AND INSTALL INSERT/NUTPLATES EXCEPT WHERE INDICATED. USE NUT PLATE DRILL JIG IF REQUIRED.
 3) ENSURE WALL THICKNESS IS BETWEEN 0.070 AND 0.130 BEFORE INSTALLING INSERT
 4) ENSURE WALL THICKNESS IS BETWEEN 0.130 AND 0.225 BEFORE INSTALLING INSERT

BENDING AND DRILLING DETAIL



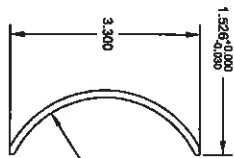
DESIGN	PH	ML	DART AEROSPACE USA, INC
DRAWN	CP	CP	EUGENE, OR
CHECKED	CP	CP	DRAWING NO. D3391
MFG. APPR.	CP	CP	REV. J
APPROVED	CP	CP	SHEET 9 OF 11
DE APPR.	CP	CP	SCALE
DATE	16.01.14	2	AFT TUBE ASSEMBLY

RELEASED
 R 2016-04-28

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VIEW W-W
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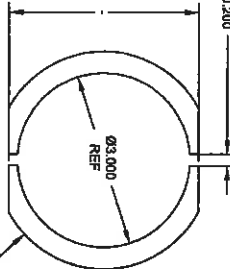
D3391-3 AFT DRILLING AND CUTTING DETAIL
(MAKE FROM D6014-080)



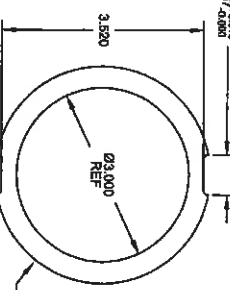
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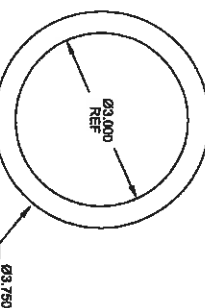
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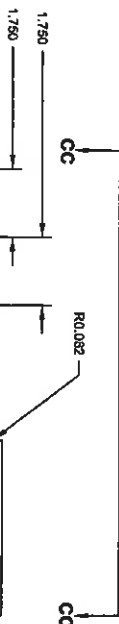
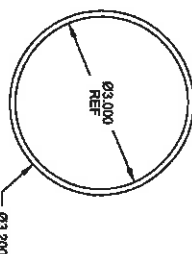
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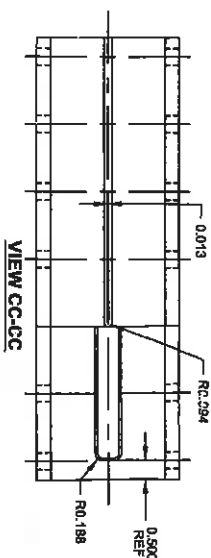
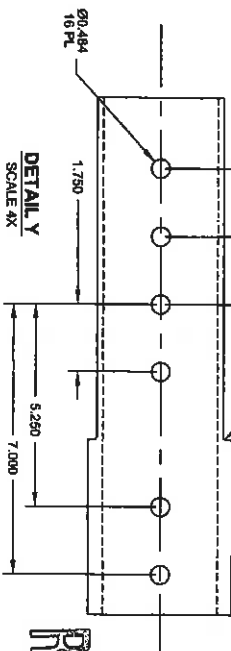
SECTION AA-AA
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SECTION BB-BB
SCALE 4X



DETAIL Y
SCALE 4X



VIEW CC-CC

DART AEROSPACE USA, INC.	
EUGENE, OR	
DESIGN	PH
DRAWN	M/L
CHECKED	CP
MFG. APPR.	<i>PFS</i>
APPROVED	<i>(Signature)</i>
DE APPR.	<i>(Signature)</i>
DATE	16.01.14
DRAWING NO.	
D3391	
SHEET 14	
TITLE	
412 FLOAT SKIDTUBE	
DART AEROSPACE USA, INC. 8700 KENNETH AVENUE, SUITE 200 EUGENE, OREGON 97402-3000 TEL: 541-320-0000 FAX: 541-320-0001 WWW.DARTAEROSPACE.COM	